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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/567,331

03/01/2006

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13877/16601

4994

26646

7590

10/27/2009

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EXAMINER

FRANK, NOAH S

ART UNIT

PAPER NUMBER

1796

MAIL DATE

DELIVERY MODE

10/27/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/567,331	Applicant(s) STAPPERS, FRANCISCUS HUBERTUS MARIA	
	Examiner NOAH FRANK	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 July 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
4a) Of the above claim(s) 5,6 and 17-19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 7-16 and 20-22 is/are rejected.
- 7) ☒ Claim(s) 20-22 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

Claims 20-22 objected to because of the following informalities: Claims 20-22 are labeled amended but are new claims. Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 4, 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Caldwell et al. (US 6,316,535) in view of Wicks. *Organic Coatings: Science and Technology*. 1999.

Considering Claims 1, 4, 9-10: Caldwell et al. teaches an aqueous system for coating a substrate comprising a first component which has hydroxyl groups and a second component containing isocyanate groups (2:35-45). The system may comprise a filler such as calcium carbonate, titanium dioxide, or zinc oxide (3:10-20). The system has improved cure times as a result of adsorption of the active polymers onto the surface of the filler (3:50-60). Therefore, the filler has been interpreted as a catalyst, as it decreases the cure time of the reaction. Additionally, a filler is a solid material in powder form.

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Caldwell does not teach the catalyst as a separate part of a two phase system. However, Wicks teaches that two package coatings may contain the catalyst in a separate third package so that cure rate can be adjusted for variations in ambient conditions (p193). Caldwell and Wicks are analogous art because they are from the same field of endeavor, namely 2K urethane coatings. At the time of the invention a person of ordinary skill in the art would have found it obvious to have used a separate catalyst phase, as taught by Wicks, in the invention of Caldwell, in order to allow adjustment of cure time. This combination would allow application of the catalyst after mixing of the urethane components, resulting in the claimed invention.

Claims 1, 4, 9, 11-12, 16, 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Honnick (US 6,669,835) in view of Wicks. *Organic Coatings: Science and Technology*. 1999.

Considering Claims 1, 4, 9, 11-12: Honnick teaches aqueous compositions containing polymerizable components and a water incompatible catalyst sorbed onto an inorganic particulate carrier (Abs). The polymerizable components may be isocyanates and amines or epoxies (cross-linkable by polar reaction) (8:25-35, 60-65). The inorganic particulate carrier may be silica (sand) (5:45-50).

Honnick does not teach the catalyst as a separate part of a two phase system. However, Wicks teaches that two package coatings may contain the catalyst in a separate third package so that cure rate can be adjusted for variations in ambient conditions (p193). Honnick and Wicks are analogous art because they are from the

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same field of endeavor, namely urethane coatings. At the time of the invention a person of ordinary skill in the art would have found it obvious to have used a separate catalyst phase, as taught by Wicks, in the invention of Honnick, in order to allow adjustment of cure time. This combination would allow application of the catalyst after mixing of the urethane components, resulting in the claimed invention.

Considering Claims 16 and 21-22: Honnick does not teach the claimed amount of catalyst in the powder phase. However, the experimental modification of this prior art in order to ascertain optimum operating conditions fails to render applicants' claims patentable in the absence of unexpected results. MPEP 2144.05. The amount of catalyst directly affects the curing speed of the coating. Consequently, it would be obvious to optimize.

Claims 1-3, 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brindopke et al. (US 5,084,536) in view of Wicks. *Organic Coatings: Science and Technology*. 1999.

Considering Claims 1-3, 7: Brindopke teaches a lacquer (2:5-10) comprising components A and B (2:15-25) which undergo a Michael reaction (polar reaction) (2:50-60). Component A may comprise trimethylolpropane trisacrylate (12:10-15) which is an electron deficient olefin. The lacquer may comprise a catalyst such as DABCO (Lewis base) or triphenylphosphane (7:25-60). The triphenylphosphane will undergo a reaction with the electron deficient olefin to form a Lewis base).

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Brindopke does not teach the catalyst as a separate part of a two phase system. However, Wicks teaches that two package coatings may contain the catalyst in a separate third package so that cure rate can be adjusted for variations in ambient conditions (p193). Brindopke and Wicks are analogous art because they are from the same field of endeavor, namely coatings. At the time of the invention a person of ordinary skill in the art would have found it obvious to have used a separate catalyst phase, as taught by Wicks, in the invention of Brindopke, in order to allow adjustment of cure time. This combination would allow application of the catalyst after mixing of the liquid components, resulting in the claimed invention.

Claims 11-13 rejected under 35 U.S.C. 103(a) as being unpatentable over Caldwell et al. (US 6,316,535) in view of Wicks. *Organic Coatings: Science and Technology*. 1999., as applied to claim 1 above, and further in view of Berg et al. (US 2002/0161135).

Considering Claims 11-13: Caldwell et al. the basic claimed composition as set forth above.

Caldwell does not teach the powder comprising a solid material having one or more activating compounds adsorbed to its surface. However, Berg et al. teaches polyurethane coating compositions (¶0160-161) comprising Tioxide TR92 (¶0118). Tioxide TR92 is a zirconia treated titanium dioxide (¶006 of instant specification). Caldwell and Berg are analogous art because they are from the same field of endeavor, namely aqueous polyurethane coating compositions comprising titanium dioxide. At the

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time of the invention a person of ordinary skill in the art would have found it obvious to have used Tioxide TR92, as taught by Berg, in the invention of Caldwell, as an equivalent alternative titanium dioxide.

Claims 14-15 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Honnick (US 6,669,835) in view of Wicks. *Organic Coatings: Science and Technology*. 1999., as applied to claims 1 and 11-12 above, and further in view of Ashley et al. (US 5,039,718).

Considering Claims 14-15 and 20: Honnick teaches the basic claimed composition as set forth above.

Honnick does not teach the claimed particle size of sand. However, Ashley et al. teaches silica fillers (6:35-45) wherein the particles may be a mixture of two or more sets of particles with two widely differing mean particle sizes such that particles of one or more set can fit in the interstices of those of the others within the matrix (7:5-10). Honnick and Ashley are analogous art because they are from the same field of endeavor, namely silica fillers. At the time of the invention a person of ordinary skill in the art would have found it obvious to have used a multimodal particle distribution, as taught by Ashley, in the invention of Honnick, in order to achieve high filler loadings (7:5-10 of Ashley). With regard to the particular claimed particle size(s) and ranges of the multimodal distribution, the experimental modification of this prior art in order to ascertain optimum operating conditions fails to render applicants' claims patentable in the absence of unexpected results. MPEP 2144.05. As taught by Ashley, multimodal

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distributions are used to fill interstitial space between fillers and achieve a higher loading (7:5-10). It then flows naturally that there must be a higher percentage of the larger filler with a lower percentage of the smaller filler(s), such that the interstitial spaces are filled.

Claim 8 rejected under 35 U.S.C. 103(a) as being unpatentable over Honnick (US 6,669,835) in view of Wicks. *Organic Coatings: Science and Technology*. 1999., as applied to claim 1 above, and further in view of Caldwell et al. (US 6,316,535).

Considering Claim 8: Honnick teaches the basic claimed composition as set forth above.

Honnick does not teach the powder phase comprising one or more amines. However, Caldwell et al. teaches that long chain tertiary amines may be used as a catalyst as an alternative to dibutyltinlaurate or zinc octoate (3:5-10). Honnick and Caldwell are analogous art because they are from the same field of endeavor, namely polyurethane coatings. At the time of the invention a person of ordinary skill in the art would have found it obvious to have used a tertiary amine, as taught by Caldwell, in the invention of Honnick, as an equivalent alternative catalyst.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Response to Arguments

Applicant's arguments filed 7/24/09 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NOAH FRANK whose telephone number is (571)270-3667. The examiner can normally be reached on M-F 9-5 EST.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Eashoo can be reached on 571-272-1197. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Mark Eashoo/
Supervisory Patent Examiner, Art Unit 1796

NF
10-19-09